

REMARKS

Claims 1-6 and 8-13 are pending in the present application. By this amendment, claims 1 and 9-10 are amended, and claims 11-13 are added. Applicants respectfully request reconsideration of the present claims in view of the following remarks.

I. Claim Rejections

Claim Rejections Under 35 U.S.C. §103(a)

Claims 1-10 are rejected under 35 U.S.C. §103(a) as being unpatentable over "Systems Architecture and Techniques for Gesture Recognition in Unconstraint Environments", Virtual Systems and Multimedia, IEEE 1997, pages 137-146 to Kohler (hereinafter "Kohler") in view of United States Patent No. 5,086,385 to Launey et al. (hereinafter "Launey"). Claim 7 was canceled without prejudice in Applicants' response dated April 29, 2004, rendering the rejection to this claim moot. With regard to claims 1-6 and 8-10, this rejection is respectfully traversed.

As amended, claim 1 recites that an apparatus for operating a home appliance comprises an operations processor coupled to the image processor for identifying an operation of a particular home appliance associated with the gesture by comparing the recognized gesture with each of a predefined set of gestures, wherein each of the predefined gestures is associated with a distinct operation of a particular home appliance. Similarly, as amended, claim 9 recites that a home appliance comprises an operations processor coupled to the image processor for identifying an operation of a particular home appliance associated with the gesture by comparing the recognized gesture with each of a predefined set of gestures, wherein each of the predefined gestures is associated with a distinct operation of a particular home appliance.

Kohler does not teach or suggest an apparatus for operating a home appliance or a home appliance as recited by claims 1 and 9, respectively. On the contrary, Kohler discloses a gesture recognition system that utilizes a gesture mapped to several similar tasks for different devices to reduce the number of gestures. For example, the gesture used for powering off the amplifier is the same gesture used for powering off the videocassette recorder as well as the television. In order to distinguish which device to

control, Kohler discloses that a user must first point to the particular device and perform the pointer click gesture sequence to select the device, such as the amplifier, and then perform an additional gesture to initiate the desired task, such as powering off the amplifier. This is not analogous to the apparatus of claim 1 or the home appliance of claim 9 because Kohler fails to teach or suggest that each gesture is associated with a distinct operation of a particular home appliance. Instead, as illustrated in the example above, Kohler states that each gesture is associated with several similar tasks for different devices. The Examiner suggests that the pointer click gesture sequence disclosed by Kohler is a gesture associated with a respective operation of a particular home appliance. Applicants respectfully disagree. In contrast, Kohler discloses that the pointer click gesture sequence is used to select the device for which the gesture performed after the pointer click gesture sequence is directed, without suggesting that the pointer click gesture sequence is associated with a distinct operation of a particular device. In fact, the pointer click gesture disclosed by Kohler is not associated with any operation of any device. Instead, the pointer click gesture merely identifies the device for which the following gesture is directed.

The Office Action relies on the teaching of Launey to allegedly overcome the deficiencies of the teaching of Kohler. However, like the teaching of Kohler, Launey does not teach or suggest an operations processor coupled to the image processor for identifying an operation of a particular home appliance associated with the gesture by comparing the recognized gesture with each of a predefined set of gestures, wherein each of the predefined gestures is associated with a distinct operation of a particular home appliance. Instead, Launey discloses an expandable home automation system that uses touchscreens, voice recognition circuitry, keypads, hand-held remote controls, computer keyboards, and/or telephones to input commands for appliances and subsystems within a home, without suggesting that the expandable home automation system also uses gestures to identify a command for appliances and subsystems within a home by comparing a recognized gesture with each of a predefined set of gestures associated with a distinct operation of a particular home appliance. Therefore, like Kohler, Launey fails to teach or suggest the apparatus recited by claim 1 and the home appliance recited by claim 9 of the present invention.

For at least these reasons, 1 and 9 are allowable over the combined teaching of Kohler and Launey. Since claims 2-6 and 8 depend from claim 1 and recite additional features, Applicants respectfully submit that the combined teaching of Kohler and Launey does not make obvious Applicants' claimed invention as embodied in claims 2-6 and 8 for at least these reasons. Accordingly, withdrawal of these rejections is respectfully requested.

As amended, claim 10 recites that a method for operating a home appliance comprises identifying an operation of a particular home appliance associated with the gesture by comparing the recognized gesture with each of a predefined set of gestures, wherein each of the predefined gestures is associated with a distinct operation of a particular home appliance.

Kohler does not teach or suggest a method for operating a home appliance as recited by claim 10. Instead, Kohler discloses a method for controlling devices by utilizing a gesture mapped to several similar tasks of different devices. In order to distinguish which device to control, Kohler discloses that a user must first point to the particular device and perform the pointer click gesture sequence to select the device, such as an amplifier, and then perform an additional gesture to initiate the desired task, such as powering down the amplifier. This is not analogous to the method of claim 10 because Kohler fails to teach or suggest identifying the operation to perform and the device to control by comparing the gesture performed with each of a predefined set of gestures associated with a distinct operation of a particular home appliance. Kohler states that each gesture is associated with several similar tasks for different devices. Again, the Examiner suggests that the pointer click gesture sequence disclosed by Kohler is a gesture associated with a respective operation of a particular home appliance. Applicants respectfully disagree. Instead, as discussed above, Kohler states that the pointer click gesture sequence is used to select the device for which the gesture performed after the pointer click gesture sequence is directed, without suggesting that the pointer click gesture sequence is associated with a distinct operation of a particular device. In fact, the pointer click gesture described by Kohler is not associated with any operation of any device. Instead, the pointer click gesture merely identifies the device for which the following gesture is directed.

The Office Action relies on the teaching of Launey to allegedly overcome the above-identified deficiencies of the teaching of Kohler. However, like the teaching of Kohler, Launey fails to teach or suggest a method for operating a home appliance comprising identifying an operation of a particular home appliance associated with the gesture by comparing the recognized gesture with each of a predefined set of gestures, wherein each of the predefined gestures is associated with a distinct operation of a particular home appliance. On the contrary, Launey discloses an expandable home automation system that uses touchscreens, voice recognition circuitry, keypads, hand-held remote controls, computer keyboards, and/or telephones to input commands for appliances and subsystems within a home, without suggesting that the expandable home automation system also uses gestures to identify a command for appliances and subsystems within a home by comparing the recognized gesture with each of a predefined set of gestures associated with a respective operation or a particular home appliance. Therefore, like Kohler, Launey fails to teach or suggest a method as recited by claim 10 of the present invention.

For at least these reasons, claim 10 is allowable over the combined teaching Kohler in view of Launey. Accordingly, withdrawal of these rejections is respectfully requested.

II. New Claims 11-13

New claims 11-13 are directed to further embodiments of Applicants' claimed invention. Support for new claims 11-13 may be found at page 4, line 11 through page 5, line 3 of the specification.

Applicants respectfully submit that new claims 11-13 are patentable over the art of record for at least the reasons give above with respect to claims 1 and 9-10. Moreover, Applicants respectfully submit that new claims 11-12 are patentable over the art of record because the art of record fails to teach or suggest an image processor operative to segment the continuous stream of gesture images into a series of frames; derive positional data corresponding to the gesture from each of the frames; and compare the positional data corresponding to the gesture to each of a set of stored sequences of positional data to determine if the gesture is a recognized gesture.

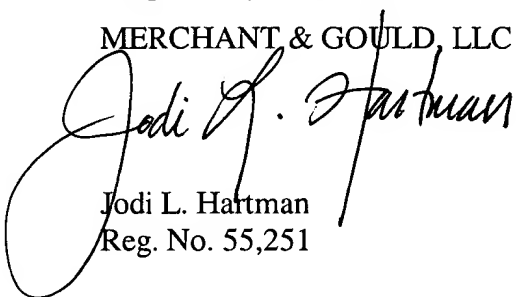
Applicants respectfully submit that new claim 13 is patentable over the art of record because the art of record fails to teach or suggest a method for operating a home appliance comprising segmenting the continuous stream of gesture images into a series of frames; deriving positional data corresponding to the gesture from each of the frames; and comparing the positional data corresponding to the gesture to each of a set of stored sequences of positional data to determine if the gesture is a recognized gesture.

CONCLUSION

For at least these reasons, Applicants assert that the pending claims 1-6 and 8-13 are in condition for allowance. The Applicants further assert that this response addresses each and every point of the Office Action, and respectfully request that the Examiner pass this application with claims 1-6 and 8-13 to allowance. Should the Examiner feel that a telephone interview with Applicants' attorney would further advance the case, please contact Applicants' attorney at 404.954.5042.

Respectfully submitted,

MERCHANT & GOULD, LLC


Jodi L. Hartman
Reg. No. 55,251

Merchant & Gould
P.O. Box 2903
Minneapolis, Minnesota 55402-9946
Telephone: 404.954.5100

39262

PATENT TRADEMARK OFFICE